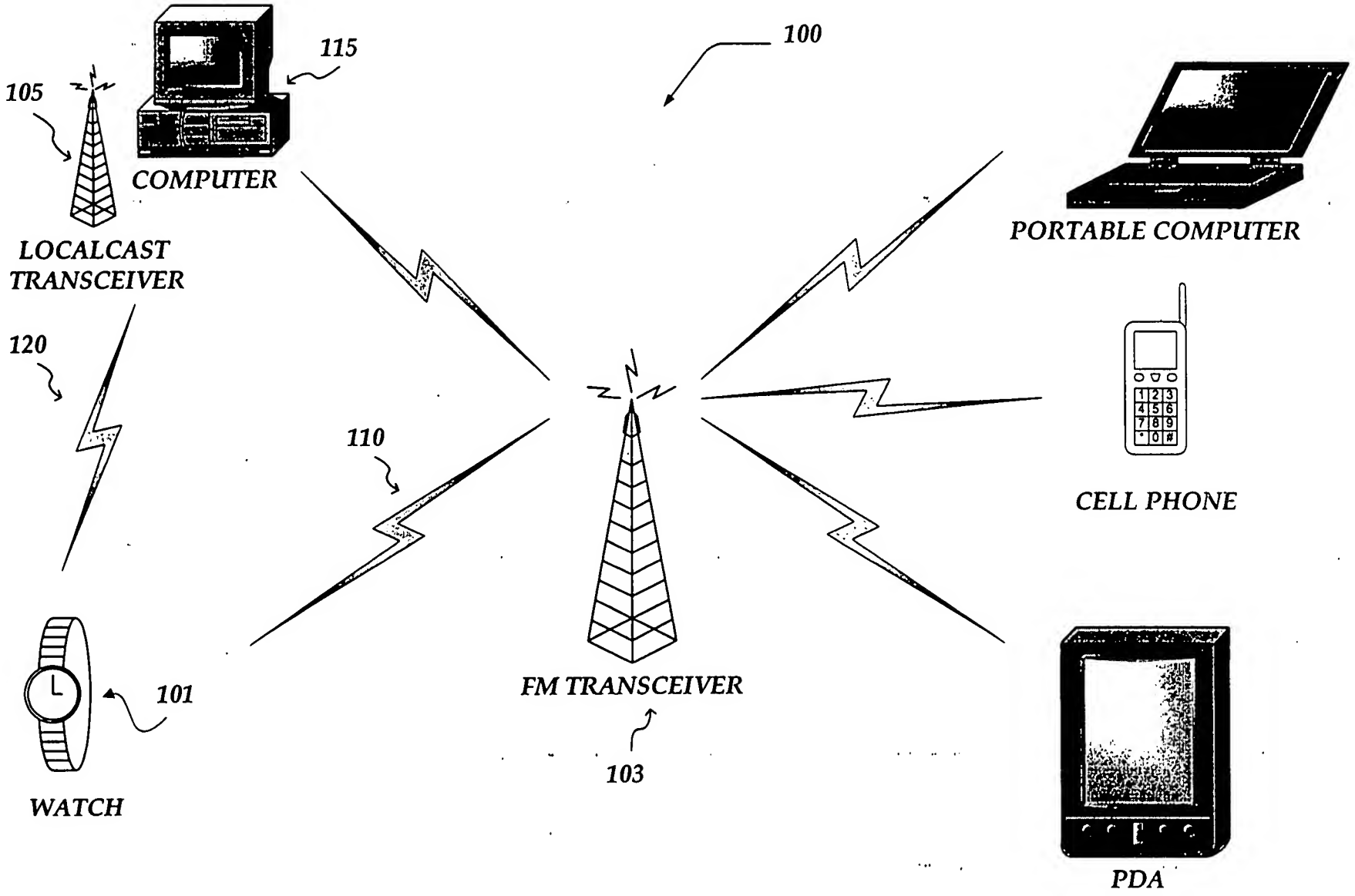

Fig.1.

Docket No.: 50017.55US01
Title: METHO 'D SYSTEM FOR UNDERSAMPLED SYMBOL SYNCHRONI ON
Attorney Name: Whitaker
Phone No.: 206.342
Sheet 1 of 6

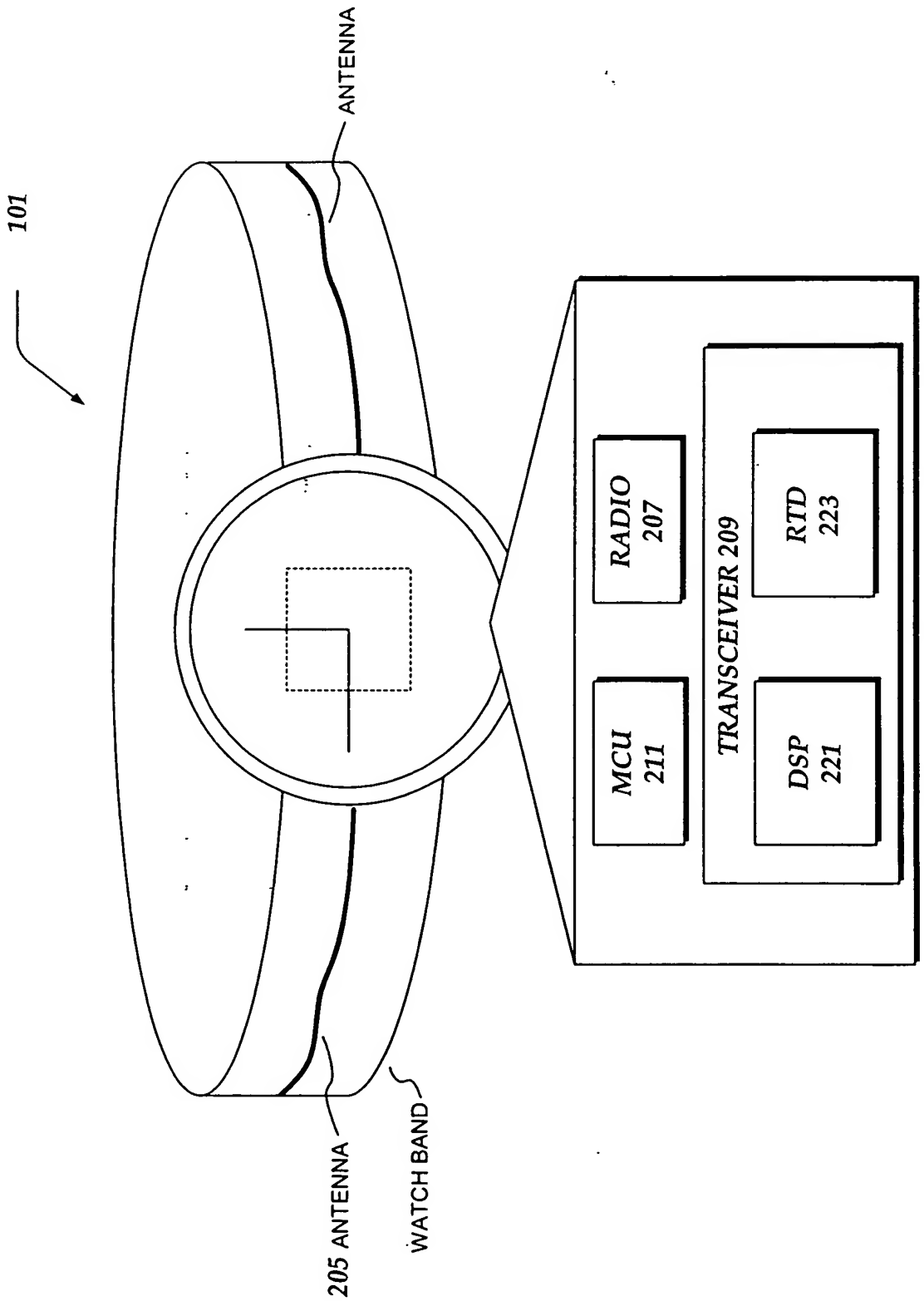
101
ANTENNA
205 ANTENNA
WATCH BAND
RADIO 207
MCU 211
TRANSCEIVER 209
DSP 221
RTD 223

Fig. 2.

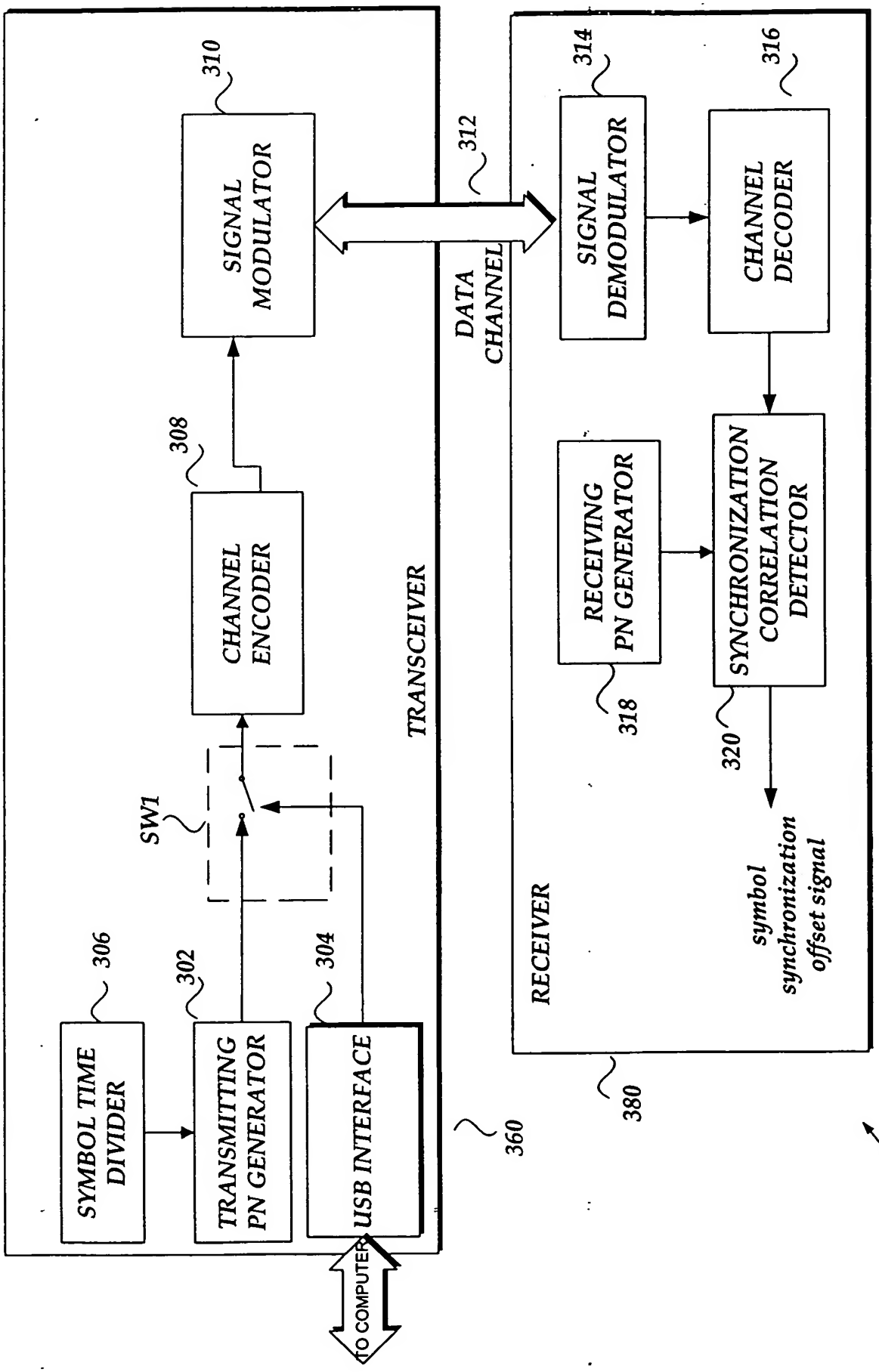
TRANSCEIVER
RECEIVER
DATA CHANNEL
SIGNAL MODULATOR
CHANNEL ENCODER
SYMBOL TIME DIVIDER
TRANSMITTING PN GENERATOR
USB INTERFACE
TO COMPUTER
SW1
SIGNAL DEMODULATOR
CHANNEL DECODER
RECEIVING PN GENERATOR
SYNCHRONIZATION CORRELATION DETECTOR
symbol synchronization offset signal
300
302
304
306
308
310
312
314
316
318
320
360
380

Fig. 3.

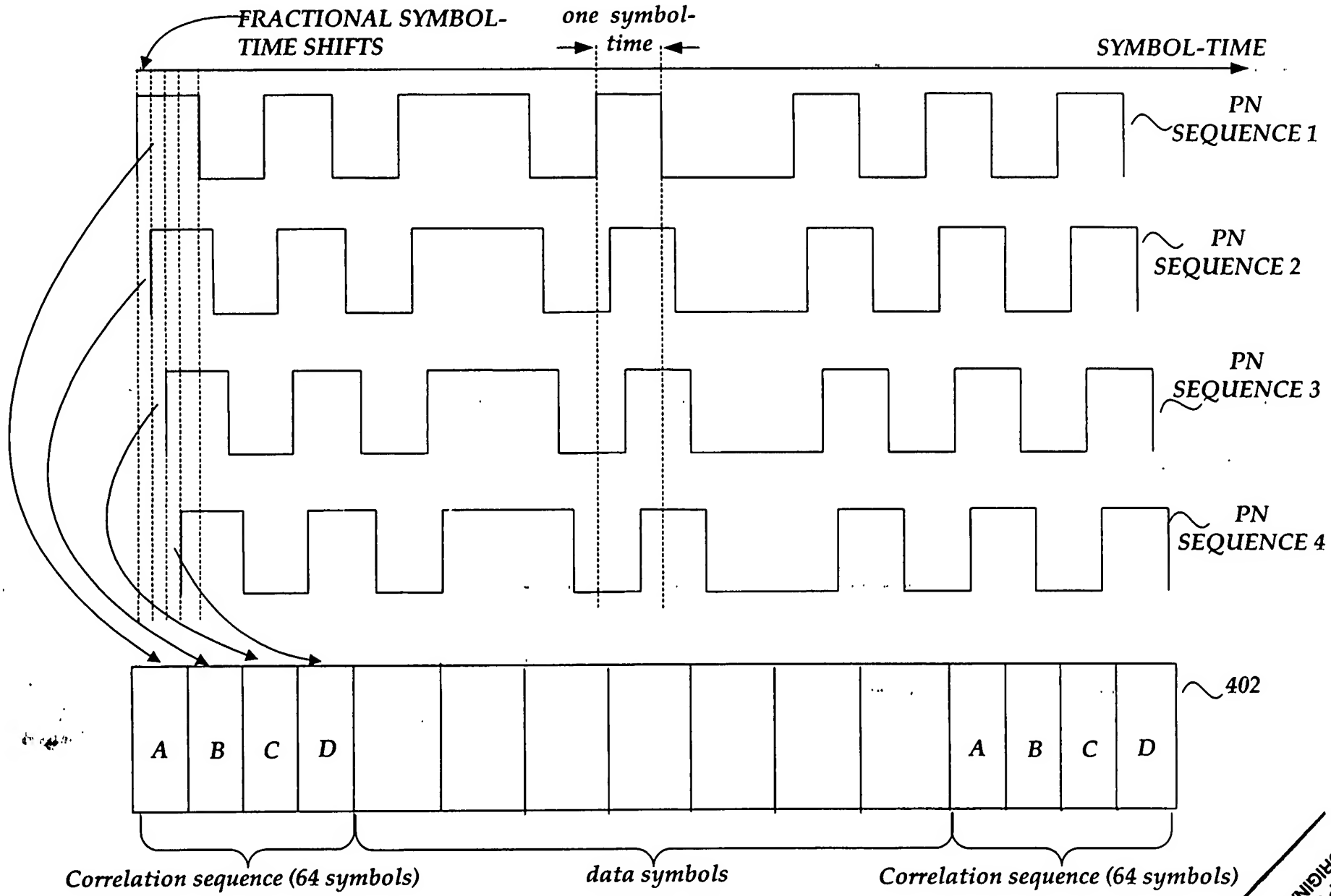

Fig. 4.

COPY OF PAPERS ORIGINALLY FILED

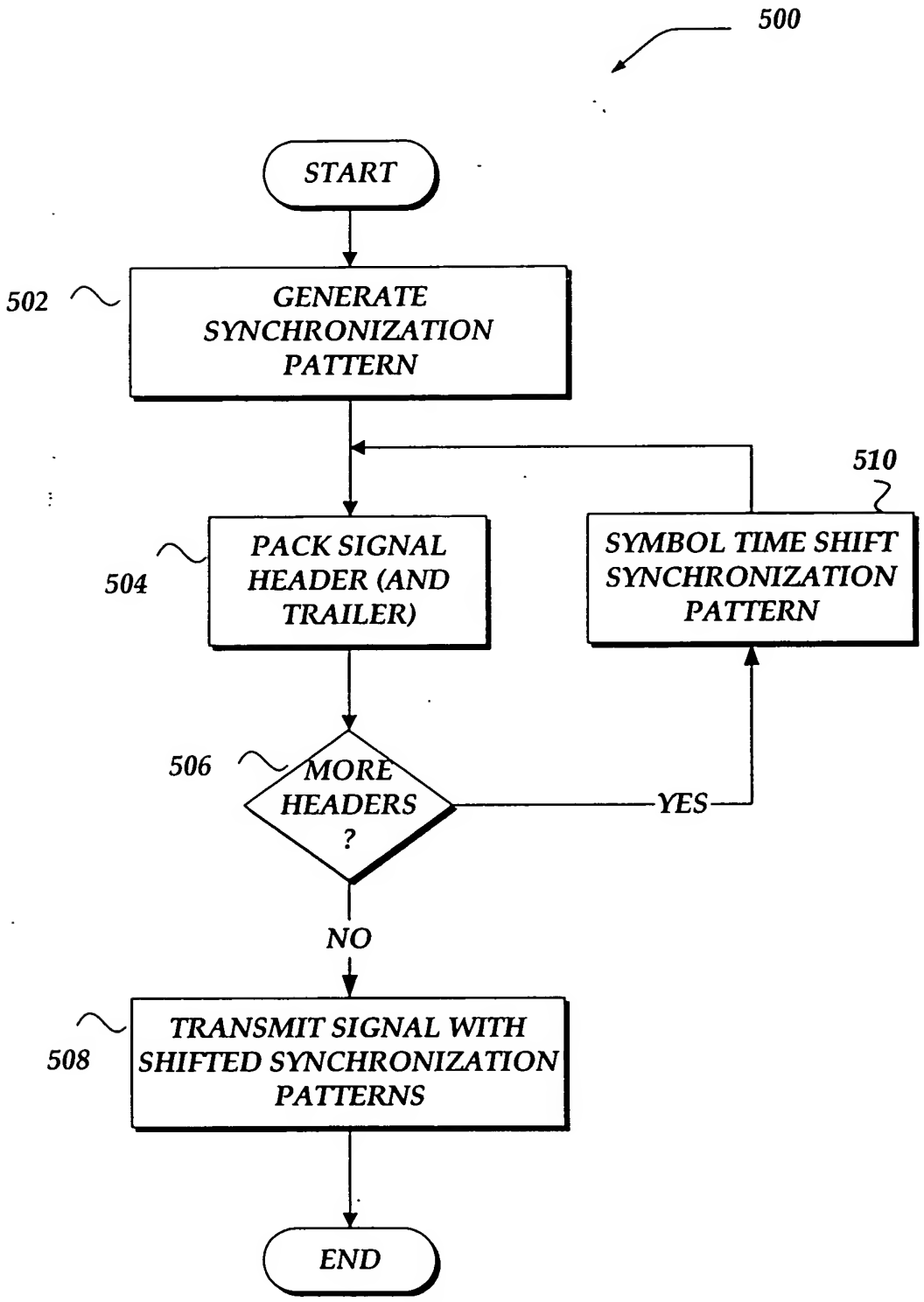
500
START
502
GENERATE SYNCHRONIZATION PATTERN
510
504
PACK SIGNAL HEADER (AND TRAILER)
SYMBOL TIME SHIFT SYNCHRONIZATION PATTERN
506
MORE HEADERS ?
YES
NO
508
TRANSMIT SIGNAL WITH SHIFTED SYNCHRONIZATION PATTERNS
END

Fig. 5.

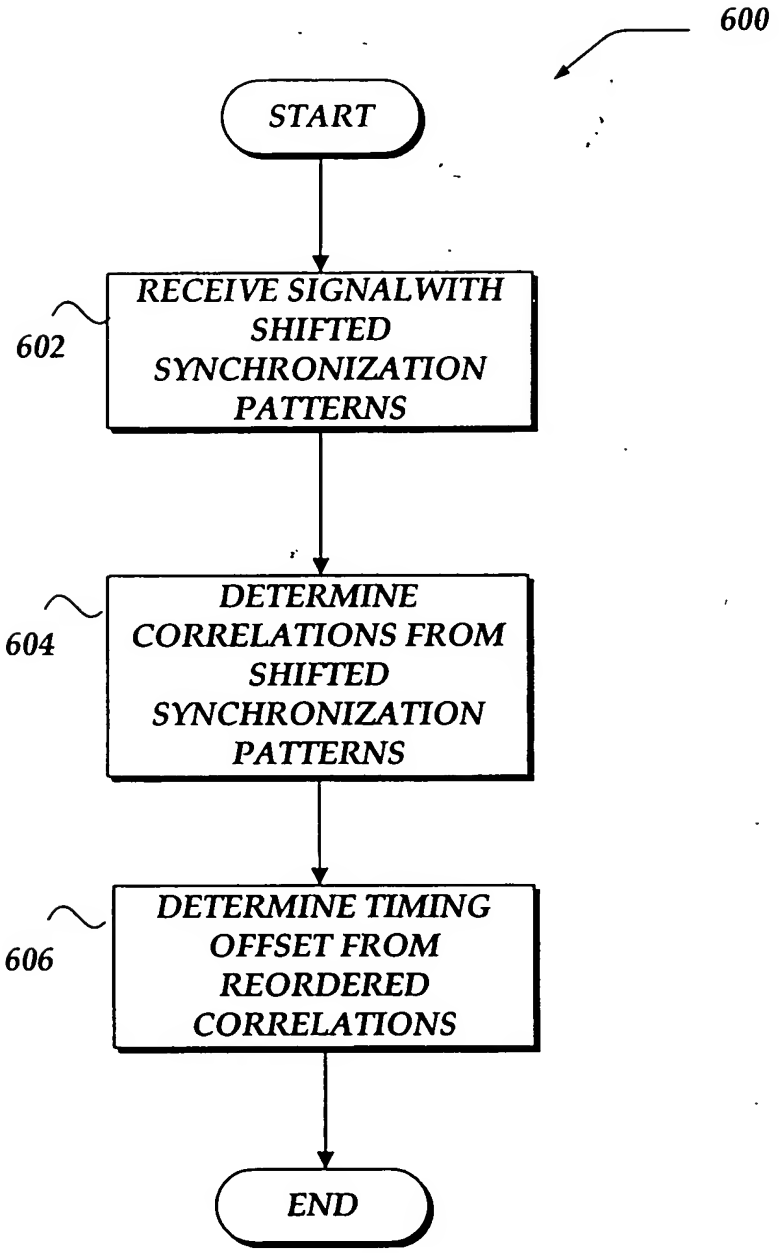
600
START
RECEIVE SIGNALWITH SHIFTED SYNCHRONIZATION PATTERNS
602
DETERMINE CORRELATIONS FROM SHIFTED SYNCHRONIZATION PATTERNS
604
DETERMINE TIMING OFFSET FROM REORDERED CORRELATIONS
606
END

Fig. 6.